

### REMARKS

Claims 15-53 are pending in the application, with claim 44 cancelled.

The examiner had rejected claims 15-43 and 45-53. Applicants have amended the claims, particularly claims 15, 16, 24, 45, 46, 50, and 51 to clarify the invention. As amended, these claims include a clarifying limitation that the HRTF's and gain adjustments are applied separately. As such, applicants believe that none of the references, either alone or in combination, teach or suggest all of the limitations of the independent claims, claims 15, 16, 17, 23, 24, 34, 45, 46, 47, 50, and 51. Applicants respectfully submit that the remarks and arguments overcome the rejections based on the art of record.

#### *Claim Rejections Under 35 U.S.C. §112*

The Examiner had rejected claims 15-17, 23, 24, 34, 40, 45-47. and 50-52 in its recitation of the limitation "magnitude" in the claims. Specifically, the Examiner indicated that there is insufficient antecedent basis for this limitation in the claim. Insofar as applicants understand the rejection, applicants disagree. Applicants believe that the Examiner is overlooking that "magnitude" is an inherent property of a signal. If the scope of a claim would be reasonably ascertainable by those skilled in the art, then the claim is not indefinite. Inherent components of elements recited have antecedent basis in the recitation of the components themselves. For example, the limitation "the outer surface of said sphere" would not require an antecedent recitation that the sphere has an outer surface (MPEP 2173.05(e)). Accordingly, applicants request that the rejections be withdrawn.

#### *Claim Rejections Under 35 U.S.C. §103*

Claims 15, 16, 18, 20, 24, 26, 28, 30, 34, 40, 45, 46, 48, and 50 were rejected under *35 U.S.C. §103(a)* as being unpatentable over applicant's admitted prior art (page 2, line 23; Figure 8) in view of Begault (3D Sound for Virtual reality and Multimedia). Further, the examiner rejected claims 17, 19, 23, 25, 27, 29, 35, 37, 39, 47 and 49 under *35 U.S.C. §103* as being unpatentable over applicant's admitted prior art, in view of

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Begault, in further view of Raydon, et al (US 3,969,588). The examiner rejected claims 21, 31, 41, and 51 under 35 USC 103(a) as being unpatentable over applicant's admitted prior art, in view of Begault, in further view of Abel, et al (US 6, 009,178). Claims 22, 32, 33, 42, 43, 52, and 53 are rejected under *35 U.S.C. §103* as being unpatentable over applicant's admitted prior art, in view of Begault, in further view of Sibbald, et al (US 5,666,425).

Support for the amendment to claim 15 may be found throughout the specification, including in FIG. 9 and the related description appearing on page 17. No new matter has been added. Applicants respectfully submit that none of the art of record teaches or suggests the limitations as provided in claim 15. The Figures cited by the Examiner in Begalt refer to amplitude differences present from the use of HRTF's. No teaching or suggestion is made regarding a separate gain adjustment as required by the limitations in claim 15. Accordingly, applicants request that the rejection be withdrawn.

For the same reasons as discussed with respect to claim 15, applicants submit that independent claims 16, 24, 45, 46, 50, and 51 are patentable over the combination of art cited by the Examiner. Withdrawal of the rejections is respectfully requested. Further, as to independent claim 34, applicants submit that the claim in its present form is patentable. Claim 34 recites an apparatus that includes separate means for modifying a channel using HRTF's and means for choosing respective values of magnitude of said right signal and left signal.

Independent claims 17 and 23 are submitted to be patentable over the combination of references cited by the Examiner for at least the reason that providing a lookup table and determining values of magnitude therein from distances implies a separate step from the modification step using the HRTF's. Thus, for at least the same reasons as discussed relating to claim 15, applicants submit that these claims are in allowable form. That is, none of the art of record specifically teaches or suggests using these distances to adjust gains in a separate step from the use of HRTF's.

Claims 18-22, 25-33, 35-43, 48-49, and 52-53 are dependant claims and are submitted to be allowable for at least their dependencies from an allowable claim. Moreover, the dependent claims recite additional limitations, and are therefore allowable for these reasons as well. Further discussion of these distinctions is believed unnecessary

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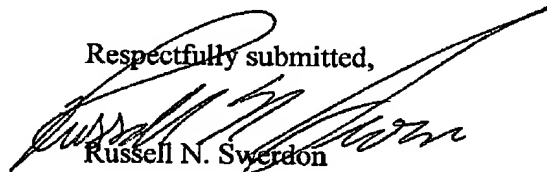
in light of the distinctions discussed above relative to the independent claims.

The arguments presented in the remarks section of this amendment are believed to provide an adequate response for asserting the allowability of all of the presently pending claims in this present application. To the extent that the applicant has not addressed some issues raised by the Examiner in the Office Action, applicant believes that such unaddressed issues do not require a response at the present time since allowability of the claims has been asserted by the applicant based upon other grounds. However, applicant's lack of response to any of the issues raised by the Examiner does not constitute an admission by the applicant as to the accuracy of the Examiner's assertions with respect to such issues. Applicant specifically reserves the right to respond to such issues at a later time during the prosecution of the present application, should such a need arise.

#### Conclusion

Accordingly, it is submitted that all issues in the Office Action have been addressed, and withdrawal of the rejections is respectfully requested. Applicants believe that this application is in condition for allowance, and respectfully request a prompt passage to issuance. If the Examiner believes that a telephone conference would expedite the prosecution of this application, he is invited to contact the Applicants' undersigned attorney at the telephone number set out below.

Respectfully submitted,



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